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## Causes of Instalment Credit Fluctuations

THE statistical series presented in the last chapter reveal a pronounced cyclical pattern in the changes of consumer instalment credit. Analysis has now to proceed backward to the causes of these changes, and forward to their effects. The economic consequences of the cyclical and secular changes of instalment credit will be discussed in Chapter 5. The present chapter is devoted to the question of causes. Why did instalment credit behave as it did? What are the forces determining its volume and fluctuations? The answers to these questions will indicate whether the cyclical behavior of instalment credit during the period covered by our statistical series was due to a set of circumstances peculiar to that period, or to forces that may be interpreted as necessarily inherent in this type of credit system, and thus whether this behavior may be expected to repeat itself in the future. This analysis should also throw light on the question whether it is possible to change the pattern of credit fluctuations, a question that will be taken up more fully in Chapter 6.

In considering the causes of instalment credit fluctuations it will be convenient to distinguish between trend, cyclical and seasonal factors. There are seasonal fluctuations that stand out very clearly, although with different patterns. But as they present no serious problems of explanation and are of minor importance for economic stability they will be ignored. Cyclical forces are of course our main consideration. But before considering these it will be well to examine the trend factors that brought about the long-run growth of instalment credit.

### TREND FACTORS

The most important factors responsible for the rising trend, that is, the growth extending over a period of several cycles, say from 1910 to the present, are, first, the institutional growth of the lending and financing machinery, developing concurrently with a change in the psychological attitude of the general public—demanders of credit (consumers) and also suppliers of funds (bankers)—and second, closely related to the first, the rising importance of durable consumer goods. There may be still other factors; for example, a secular rise in real income and wealth would presumably lead to a rise in the volume of consumer instalment credit, even without a change in the institutional framework of the lending machinery and practices or in the psychological attitude of the consuming public. But in view of the comparative shortness of the period since the first major rise in instalment credit, the increase in national income and wealth is a relatively unimportant factor, except that it found expression in a rise of the relative importance of durable consumer goods.

The institutional growth of the various kinds of consumer instalment credit during the past three decades has been a striking phenomenon. Since 1910, especially since 1915, instalment selling has become increasingly popular and has spread rapidly from one product and industry to another. A fundamental factor in this development is the increase in the production and use of durable consumer goods; the rapid rise of the automobile, washing machine, mechanical refrigerator and radio created an increasing demand for instalment credit. To meet, and also to stimulate, this need, new financial institutions have sprung up and existing financial institutions, such as the commercial banks, have entered the field of direct instalment financing.<sup>1</sup> These changes and

<sup>1</sup> Brief sketches of the development of personal finance companies, sales finance companies, industrial banking companies and the personal loan departments of commercial banks are presented in the descriptive monographs on these institutions published by the National Bureau of Economic Research (Financial Research Program). A comprehensive history of the evolution of consumer credit in all its fields is presented by Rolf Nugent in *Consumer Credit and Economic Stability* (1939).

developments have intensified competition; credit standards have been liberalized and lending procedures simplified, and in some cases the cost of credit to the consumer has been substantially reduced. At the same time a notable change has been occurring in the attitude of the general public, consumers and legislators, manufacturers and bankers. Buying consumer goods on credit is no longer regarded as harmful to social prestige, and selling on credit is no longer regarded as unsound; banks have come to regard paper originating from consumer instalment credit as an asset that is as safe and liquid as producer credit paper.

The introduction of new types of consumer instalment credit, the rapid growth of older types and the development of financial arrangements which made it easier to obtain credit unquestionably caused a great rise in instalment outstandings during the early years of expansion, some of this increase probably occurring at the expense of other, non-instalment types of lending, such as open book credit. And the standardization of consumer lending—the rise of the sales finance company as an intermediary between the dealer and consumer on the one hand, and the banks and the money market on the other hand—has facilitated enormously the utilization of bank funds for the financing of sales to consumers; a wide opening has been provided through which funds can now flow easily from the general pool of the money market into instalment credit channels.

Unfortunately there are but fragmentary data on outstandings before 1929. But it can hardly be doubted that the institutional development was most rapid in the decade before that year. We know,<sup>2</sup> for example, that for four types

<sup>2</sup> The data for 1925 and 1929 are obtained from the Appendix tables in National Bureau of Economic Research (Financial Research Program), *The Volume of Consumer Instalment Credit, 1929-38*, by Duncan McC. Holthausen, in collaboration with Malcolm L. Merriam and Rolf Nugent (1940), except the figure for cash loan outstandings in 1925, which was computed from information in Rolf Nugent, *Consumer Credit and Economic Stability* (1939). The data for 1940 were supplied by U. S. Department of Commerce, Bureau of Foreign and Domestic Commerce, Current Business Analysis Unit. The 1940 figure for cash loans includes instalment loans insured by the Federal Housing Administration, under a program inaugurated in 1934.

of cash lenders (commercial bank personal loan departments, industrial banking companies, personal finance companies and credit unions) year-end outstandings rose from 201 million dollars in 1925 to 557 in 1929, an average annual increase of 29 percent, while in the years 1929-40 they rose to 1,840 million, an average annual increase of only 11.5 percent. The trend is similar in regard to commodity credit. For three types of retailers (automobile dealers, furniture stores and department stores) year-end outstandings for 1925 (computed as of January 31, 1926, since no earlier figures are available) were 1,514 million dollars; during 1925-29 the average annual increase was 8.8 percent (to 2,121 million dollars), but during 1929-40 it was only 1.6 percent (to 2,529 million dollars). For the entire range of retail dealers that extend instalment credit the data do not extend back before 1929, but it is known that also for this larger group the average annual increase during 1929-40 was only about 1.6 percent.

But even the rises from 1925 to 1929 cannot be explained entirely in terms of institutional growth, for cyclical forces certainly played a part too during that period. And it seems justified to assume that in the years from 1929 to 1940—the period covered by the data used in this study—the changes that occurred were mainly changes of a cyclical rather than an institutional character, although it would be too much to say that there were no institutional rises after 1929.<sup>3</sup>

### CYCLICAL FACTORS

It will facilitate the analysis of cyclical movements in instalment credit if the actual volume and price of credit are regarded as determined by demand and supply, that is, by the interaction of demand and supply curves or schedules which show how much credit the lenders are prepared to supply and how much the borrowers are willing to demand at dif-

<sup>3</sup> For example, the rapid growth in the business of personal loan departments of commercial banks has taken place in recent years.

ferent hypothetical prices. The cyclical forces operating on supply and on demand can then be distinguished.

The supply curve of instalment credit cannot be traced statistically, and the demand curve is still less susceptible of computation, but it is possible, on general reasoning and by piecing together all kinds of information, to arrive at tentative conclusions concerning the structure and cyclical behavior of demand and supply. There are good reasons to believe, for example, that the demand for, and possibly also the supply of, the most important types of instalment credit is subject to cyclical swings, more precisely, that the curves tend to move to the right during cyclical upswings and to the left during cyclical downswings.

Can we assume that demand and supply curves for instalment credit have the ordinary shape? There seems to be no firsthand reason to doubt it. In other words, it seems reasonable to believe that, if other things are equal, the lower the price of credit the more will be demanded and the less will be supplied. The degree of elasticity of demand and supply, that is, the responsiveness with which demand and supply will react to a given change in price, is a question that requires separate consideration.

For a useful demand and supply analysis it is necessary to define the two magnitudes, amount of credit and price of credit, more carefully. This is not so easy as it might seem at first sight, partly because consumer instalment credit is not a homogeneous commodity but is a whole array of different types of credit which are more or less imperfect substitutes for one another. The various types of instalment credit, and their markets, have to be analyzed separately in order to be sure about any general propositions regarding the shape and cyclical behavior of the demand and supply curves.

“Amount of credit demanded and supplied” may refer either to new credits or to outstandings. A given change in the supply price, or, more generally, in supply conditions (including down payment percentage and contract length),

will affect both the volume of new credits and the amount of outstandings.<sup>4</sup> Both changes are significant, though what is paramount in one's thought is usually the change in new credits, especially because this magnitude is closely linked with the sales of the durable goods that are bought on credit.<sup>5</sup> For our purposes, however, outstandings are more important.

Fortunately in many contexts we may speak of outstandings instead of new credits without changing the argument, for usually if a factor, say a change in the price of credit, affects new credits it will change outstandings in the same direction or even by the same amount.<sup>6</sup> There is one case, however, in which it is necessary, in speaking of demand and supply, to distinguish carefully between new credits and outstandings: if supply conditions change with respect to contract length, if they become, say, more liberal (longer maturities, increase in the number of instalments), it may be that new credits are affected only slightly or not at all (demand for new credits being inelastic) while outstandings rise, because of the longer maturities (demand for credit in the sense of outstanding credit being somewhat more elastic).<sup>7</sup>

It is much more difficult to give a precise definition of what is meant by the price of instalment credit. The economic analyst will be inclined to define the price of credit as the finance charge in terms of an annual or monthly rate of interest on a regularly diminishing loan balance. But

<sup>4</sup> The distinction is similar to that between what has been called "flow" and "stock" analysis in monetary theory.

<sup>5</sup> It should be noted, however, that the volume of new credits (exclusive of refinancing) and the money value of goods sold on credit need not move exactly parallel, because a change in new credits may be due to a change in the down payment percentage, the money value of the goods sold on credit remaining unchanged.

<sup>6</sup> The percentage change, however, will never be the same in both magnitudes. Therefore the numerical measure of the elasticity of demand (or supply) of the two magnitudes with respect to the price of credit (or anything else) would not be the same.

<sup>7</sup> It is hardly conceivable, however, that with standardized and fairly constant repayment conditions a factor might influence new credits and outstandings in an opposite direction. If repayment conditions were less standardized than they are, and if refinancing of outstanding credits in response to changes in terms were frequent, the discrepancies between new credits and outstandings would be of greater importance.

it must be emphasized that in the field of consumer installment credit this would be very misleading. "True interest rates," that is, annual or monthly rates equivalent to the total charges, are seldom quoted, and for most consumers it is difficult or impossible to compute them. Only in the practice of personal finance companies is it usual to quote to the borrower the equivalent interest rate, and here it is quoted on a monthly rather than an annual basis.<sup>8</sup> Cash loan agencies other than personal finance companies usually state a rate of discount plus an investigation charge and possibly an insurance fee, and in making out the note deduct the amount of charge from the original loan. The borrower is charged, say, 6 percent of the original loan amount, plus an investigation fee of \$1, but the equivalent annual interest rate is much higher than this quoted charge, since the unpaid balance is continuously diminished during the life of the loan. When the charge is deducted in advance the equivalent annual rate of interest on a \$100 loan, discounted at 6 percent and repayable in 12 equal monthly instalments, is 11.8 percent.<sup>9</sup> It is safe to say that many borrowers are not aware of the interest equivalent of the charge.

In the field of commodity credit the situation is still more obscure. Here it has been a frequent practice to tell the customer only the dollar amount of his total monthly (or weekly) payment, with no mention of the amount that constitutes the finance charge. In new-automobile financing this practice has been largely superseded, and automobile sales finance companies now commonly state the amount of the charge explicitly. Even when there is full information, however,

<sup>8</sup> Even in this field the prevalence of "combination" rates, and the possibility that consumers will mistake monthly for annual rates, make for a considerable degree of confusion about charges. See National Bureau of Economic Research (Financial Research Program), *Personal Finance Companies and Their Credit Practices*, by Ralph A. Young and Associates (1940) Chapter 6.

<sup>9</sup> This figure is obtained by using the formula  $r = \frac{24c}{a(n+1)}$  in which  $c$  is the finance charge,  $a$  is the original unpaid balance and  $n$  is the number of months the contract runs.

the equivalent annual interest rate is not quoted,<sup>10</sup> and the computation of this rate is particularly complicated when the customer is required to carry insurance on his purchase.

There can be no doubt that in many cases consumers do not know what credit is costing them. Even if they know the cost they are not told it in terms that would enable them to compare the rates of different credit offers, and few credit users are themselves able to compute equivalent annual interest from the data provided. Therefore even considerable differences in the cost of alternative credit opportunities open to them may escape notice unless all other conditions are precisely the same.

There is another consideration, apart from ignorance, which complicates matters: the finance charge itself is not the only cost element determining demand. Even if the consumer were always well informed about the interest equivalent of his credit charges, there are other terms of the contract—such as down payment percentage, number of instalments, insurance charges, investigation requirements, type of security required, handling fees and various provisions respecting delinquencies and the like—which affect his choice and may induce him to prefer a credit which is more costly in terms of equivalent interest. To say that instalment credit has become cheaper or more available may mean not that the rate of charge has been reduced or that inferior credit risks are accepted, but that the down payment percentage has been reduced or the length of the credit period extended so that it is possible to repay in smaller instalments. It is clearly conceivable, even probable, that a liberalization of credit consisting of a lengthening of the contract

<sup>10</sup> In the commodity credit field, especially in the practice of sales finance companies, the finance charge is regarded as discount rather than as interest, and any quotation of equivalent annual rates is considered irrelevant. It is clear, however, that the quotation of a percentage discount is an incomplete statement of the cost of credit unless the length of the contract is also specified. If two credit offers with different contract lengths are to be compared, the discounts must first be recomputed on the same contract length. This would be an alternative to comparing interest rates on the average unpaid balance.

period or a decrease in the down payment percentage might induce a substantial rise in demand for credit (and for the goods sold on credit), even if the change in these terms involved an increase in credit charge and even if the consumer were aware of this increase. The influence of these other factors, as compared with the finance charge, is still stronger, of course, if the borrower lacks the precise knowledge that would enable him to compare interest costs.

The interest rate could be regarded as the sole price factor only if the instalment credit had a perfect market such as is assumed in a large part of the general theory of money and credit. If there existed a generally accessible instalment loan market where demand for all types of instalment credit could be satisfied on the same contract terms, at least within certain limits, and consumers could freely renew and extend loans, the price of instalment credit could be thought of unequivocally as interest on the average unpaid balance.

Because the loan market is not of this nature it is necessary, in discussing demand and its elasticity, to distinguish at least three factors: the finance charge itself; the down payment percentage; and the number of monthly or weekly instalments allowed for repayment. These factors, although certainly interrelated, can vary independently of one another and cannot be reduced to a common denominator.<sup>11</sup>

### *Analysis of Supply*

One would expect the supply of consumer instalment credit to behave no differently from that of credit in general. In other words, it is plausible that lenders tend to contract credit in bad times and to expand it in good times, even though the shifts in credit supply may not be expected to coincide exactly with business turning points: lenders may

<sup>11</sup> Theoretically it should be possible to construct indifference and preference charts showing which of the possible combinations of the three principal factors are equivalent in the mind of the consumer, for example, how great a decrease in interest cost would compensate the consumer for a given reduction in number of monthly instalments or a given increase in down payment percentage. But actually it is not possible to say much about these indifference and preference relationships.

look ahead and tighten credit, or expand it, in anticipation of what they believe to be the coming development.

A deterioration in the economic situation, which for many people means an actual or potential loss of employment or fall in income, makes for greater risk of default on credit obligations; it is plausible, therefore, that at such a time the lenders will be more cautious, will tighten their terms or, even if there is no visible change in terms, will sift applications more carefully. And it is plausible that during an economic upswing they will relax their terms and standards, since more people are good risks.

What empirical evidence is there for these suppositions? Such behavior on the part of lenders cannot be deduced from the mere fact that credit demonstrably tends to expand and contract with the cycle, for these shifts might conceivably be due entirely to cyclical changes in demand. In fact, as far as cyclical fluctuations are concerned, changes in demand probably play a much greater role than those in supply. If it could be established, however, that credit terms (as measured by the rate of charge, contract length and down payment percentage) tend to become more liberal when credit expands and more onerous when it contracts, it would appear that there is a cyclical change in the attitude of lenders: if the price of a commodity rises when sales fall, and falls when sales go up, the supply curve must have shifted (unless either the demand or the supply curve has an unusual shape, the former being positively or the latter negatively inclined).

There is very little statistical evidence that terms have actually fluctuated in this way. There is even some evidence to the contrary, as can be seen from the following charts. Terms on cash loans may be disregarded in this connection, since they are, for the most part, regulated by law and custom and hardly show a cyclical movement.

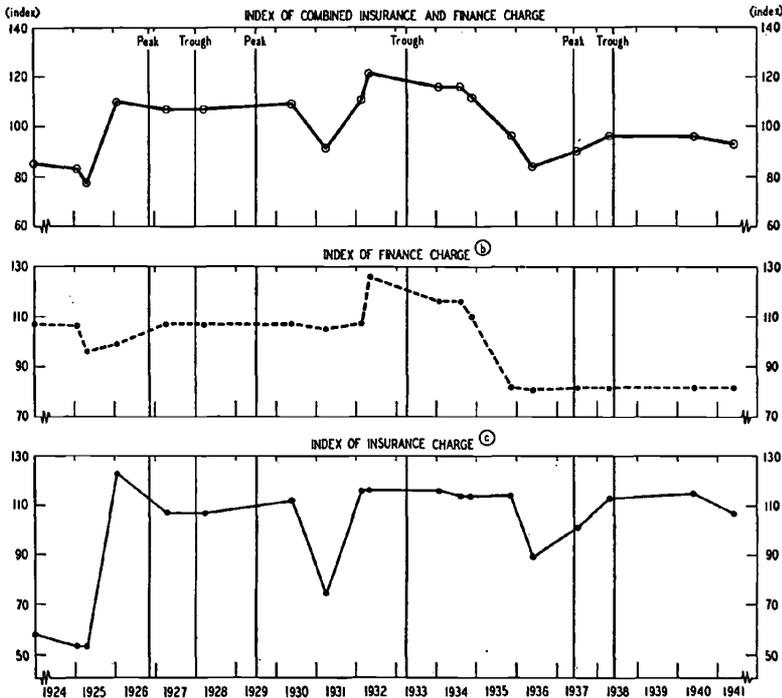
Indices of finance and compulsory insurance charges applicable to a sample automobile instalment contract (\$600 new Chevrolet with  $33\frac{1}{3}$  percent down payment and 12-

month maturity in Albany, New York) are presented in Chart VIII for the period 1924-41. These indices do not exhibit significant cyclical regularities; moreover, the changes that did occur imply such small differences in the monthly instalment that they can scarcely be regarded as a significant

CHART VIII

INDICES OF FINANCE AND INSURANCE CHARGES APPLICABLE IN ALBANY, N. Y., TO A \$600 NEW CHEVROLET WITH 33 1/3 PERCENT DOWN PAYMENT AND 12-MONTH CONTRACT, 1924-41<sup>a</sup>

(Average for period equals 100)



<sup>a</sup> The vertical lines indicate general business cycle turning points (monthly dates), as determined by W. C. Mitchell and A. F. Burns of the National Bureau of Economic Research. The indices are plotted as of the exact dates on which changes were made in finance or insurance charges.

<sup>b</sup> Computed from data furnished by a large sales finance company.

<sup>c</sup> Computed from manual rates supplied by the National Automobile Underwriters Association. Insurance costs include coverage for fire and theft (limited coverage during 1924-29, broad coverage after 1929) and, after 1931, \$50 deductible collision.

factor for the explanation of actual fluctuations that occurred in credit.<sup>12</sup>

Changes in the average duration of instalment indebtedness over the period 1928-40 are shown in Chart IX for five types of retail establishments. It must be stressed that only the data from automobile dealers pertain to original length of contract; for the four other types of establishments the data pertain to the actual duration of indebtedness, which may be longer than the stipulated contract length, as a result of delinquency or refinancing, or may be shorter, as a result of prepayment. Thus a rise or fall in the duration of indebtedness may indicate only that collection conditions have become worse or better, rather than that terms have been liberalized or tightened. But the figures on duration of indebtedness may be regarded as at least a rough indication of original contract length.

With these reservations each of the five series indicates a general liberalization of terms during the contraction years 1928-32. During the expansion years 1933-36 terms were tightened by three of the five types of establishments, but automobile dealers and household appliance stores continued their liberalization of terms almost without interruption until 1937.<sup>13</sup> The notable lengthening of the contracts offered by automobile dealers during 1935-37 is particularly significant, for the automobile series is quantitatively much the most important of the five presented.

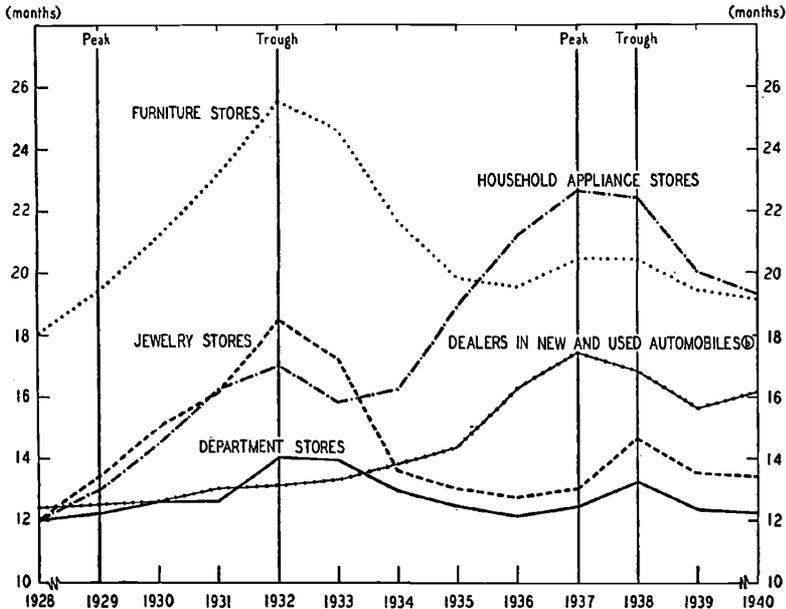
Cyclical influences are scarcely more discernible in the series presented in Chart X, showing the proportion of substandard automobile and non-automobile ("diversified") paper handled by private sales finance companies and the

<sup>12</sup> No indices of this type can be wholly representative, for both finance charges and required insurance coverage vary considerably, according to several factors. But region, type and price of car and contract terms have been carefully chosen in an effort to make these indices as representative as possible. Though the finance charges are derived from the rate schedules of a single company, this company is a large one and the charges of the companies doing the greatest volume of business follow much the same trend. Thus the indices in Chart VIII may be regarded as at least illustrative for a considerable part of automobile financing.

<sup>13</sup> The one exception is the tightening of terms in 1933 by appliance stores.

CHART IX

AVERAGE DURATION OF INSTALMENT INDEBTEDNESS TO FIVE TYPES OF RETAIL ESTABLISHMENTS, 1928-40<sup>a</sup>



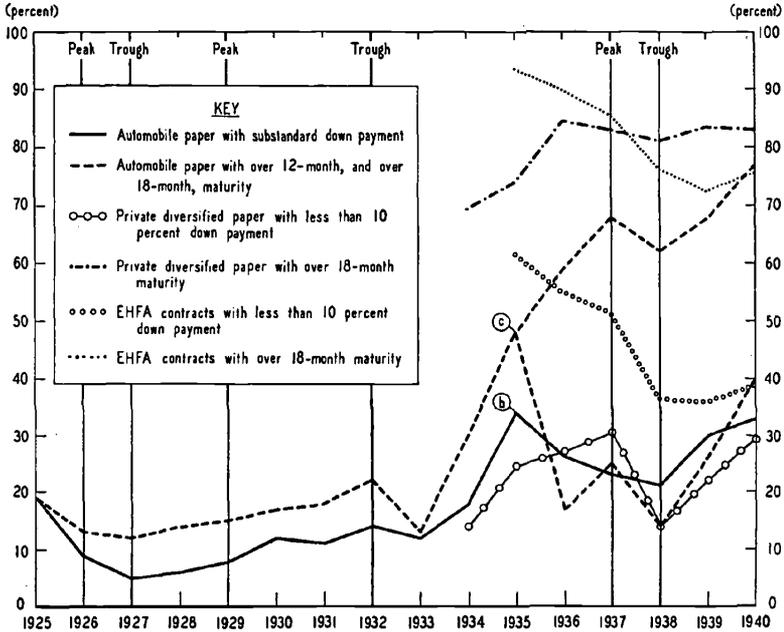
<sup>a</sup> For 1928-38 based on National Bureau of Economic Research (Financial Research Program), *The Volume of Consumer Instalment Credit, 1929-38*, by Duncan McC. Holthausen, in collaboration with Malcolm L. Merriam and Rolf Nugent (1940) p. 46. Automobile figures for 1939-40 estimated on basis of data provided by three leading sales finance companies; other 1939-40 figures based on data supplied by U. S. Department of Commerce, Bureau of Foreign and Domestic Commerce, Current Business Analysis Unit. The vertical lines indicate general business cycle turning points (calendar-year dates), as determined by W. C. Mitchell and A. F. Burns of the National Bureau of Economic Research.

<sup>b</sup> Data on automobiles (passenger cars only) refer to formal length of contract and not to actual duration of indebtedness.

Electric Home and Farm Authority. Here again automobile contract lengths are shown to have been considerably liberalized during the upswing of 1933-37; in fact, toward the end of this period the definition of standard contract length was changed from 12 months to 18 months (for all except used cars over two years old). On the other hand, from 1935 through 1938 there was a declining proportion of automo-

CHART X

STANDARD AUTOMOBILE AND DIVERSIFIED PAPER HELD BY REPORTING SALES FINANCE COMPANIES, IN PERCENT OF ANNUAL VOLUME, 1925-40<sup>a</sup>



<sup>a</sup> Data on automobile paper cover both new and used cars. For 1925-39 the data are from National Association of Sales Finance Companies, *Composite Experience of Sales Finance Companies and Automobile Dealers, 1939*, Table 2; figures for 1940 are estimates made by the National Bureau. Data on "private diversified" paper (non-automobile paper held by a large private sales finance company) were furnished by the company, and refer mainly to mechanical refrigerators. Data on EHFA contracts were furnished by the Electric Home and Farm Authority. The vertical lines indicate general business cycle turning points (calendar-year dates), as determined by W. C. Mitchell and A. F. Burns of the National Bureau of Economic Research.

<sup>b</sup> Standard down payment was, through 1935, one-third of cash selling price for new cars and 40 percent for used cars; after 1935 it was one-third for both.

<sup>c</sup> Standard contract length was 12 months for all cars until 1936 and 1937, when the two trade associations, respectively, raised the maximum to 18 months for all except used cars over two years old. After 1935 the upper curve indicates the percentage of automobile paper with more than 12-month maturity, and the lower curve indicates the percentage of such paper with more than 18-month maturity.

bile paper with substandard down payment requirements, though this may have been due in some degree to the modification in the definition of standard after 1935. The curves for contract maturity and down payment in diversified financing cover such a short period that it is difficult to draw conclusions about their cyclical behavior, but it may be noted that of all three pairs of curves only those of EHFA show a strictly parallel movement.

It thus appears that cyclical changes in credit terms have been neither regular nor pronounced. This does not necessarily mean that, contrary to expectations, dealers and finance companies attempt in a downswing to stem the decline by making credit more available, for even if terms are lightened the standards determining the acceptance of applicants may be made much more rigorous; such increased care in the sifting of credit applications would leave no trace in the statistical record of contract terms.<sup>14</sup> It does, however, seem evident that cyclical changes in demand are more important than cyclical or competitive changes in the conditions under which credit is supplied. But before discussing demand let us examine the elasticity of supply.

What can be said about the shape of the supply curve? Is supply likely to be elastic, that is to say, can an increasing demand for credit be easily accommodated without a sharp rise in the "price" of credit? Or is it likely to be inelastic, that is to say, will an increase in demand call forth a tightening of terms? Similarly, will a recession in demand call forth a substantial easing of terms (inelastic supply), or will it leave terms virtually unchanged (elastic supply)? If supply is elastic changes in demand will bring about large changes in new credit and outstandings. If supply is highly inelastic an increase in demand will be choked off; the result will be tighter terms or closer rationing rather than a rise in volume. Thus the more elastic the supply of credit, the stronger the

<sup>14</sup> Experts in the field—Rolf Nugent, for example—believe that such an invisible contraction in supply has been an important factor in recent depressions.

influence that changes in demand for credit will have on the demand for consumer goods and on economic stability.

Naturally the elasticity of supply will not always be the same. It may change both over the long period and cyclically. It may also be different in the upward and in the downward direction: an increase in demand may lead to a rise in the cost of credit (inelastic supply in the upward direction), but it may be that a decrease in demand will *not* lead to a cheapening of credit (elastic supply in the downward direction).<sup>15</sup>

What do we know about the facts? Let us take first the supply of funds to instalment credit institutions. It was pointed out in Chapter 2 that these institutions have gained more and more easy access to the general money market, a development undoubtedly due in part to their favorable record during the depression of the early 1930's. This increased access to the general pool of the money market must have entailed an increase in the elasticity of the supply of funds available to these institutions. In fact, at least since 1929, the supply seems to have been very elastic over the relevant range of credit amounts. There are certainly differences between large and small companies, but by and large there is no evidence, at least since 1929, that an increased demand for funds on the part of instalment credit institutions has met with an inelastic supply leading either to a rise in the cost of borrowing or to a rationing without change in terms.<sup>16</sup>

It is true that the upswing from 1933 to 1937 was unusual, inasmuch as interest rates in general remained low all the way through. This may change in future cycles. In future upswings, and in early phases of depressions, loanable funds in general may again become scarce and interest rates may rise, as they did in former cycles. This would not mean, however, that there could not be, at the interest rate prevailing

<sup>15</sup> This is the typical situation in the labor market. At least when full employment is reached (sometimes even before that point) wages rise if demand for labor increases. But if demand for labor falls, wages do not fall for a while: wages are rigid in the downward direction.

<sup>16</sup> The interest cost of instalment credit agencies is a negligible part of their operating expenses.

at any particular time, a fairly elastic supply of funds for instalment credit, so long as instalment credit institutions maintain their present rank among the low-cost borrowers in the money market, and the volume of instalment credit remains at a low level as compared with other types of credit.

What holds of the supply of funds to the instalment credit institutions seems to hold also of these institutions' supply of funds to the final consumer. The supply of credit to the ultimate consumer seems now to be fairly elastic, at least over a wide range. In other words, increases in demand can easily be met without a tightening of terms.<sup>17</sup> Those changes in terms which have occurred have been due not to an increase in demand but to a shift in supply, which in turn was due mainly to a change in general business conditions. The tightening of credit in some lines, which is said to have preceded the downturn of 1937, probably does not constitute an exception and ought to be attributed to a shift in the supply curve rather than to an insufficient elasticity of supply coexistent with an intensification of demand. The supply curve shifted because the lenders felt that the liberalization of terms had been driven farther than was compatible with the safety principles of the trade. There are, after all, limits to a progressive liberalization of terms. Not only can the down payment percentage not be reduced below zero, but repossession experience shows that default risk increases as the down payment percentage becomes smaller and as contract duration becomes longer.<sup>18</sup>

<sup>17</sup> There are reasons for believing, however, that this elasticity of supply would not hold for extreme variations in the volume of lending. For most types of consumer instalment lending, economies are possible with increases in volume. Hence the instalment credit business can be classified as one of decreasing cost. It follows that an extreme shrinkage of demand would lead to a rise of average unit cost of lending and hence to a rise in the price of credit. In other words, in its extreme left-hand position the supply curve may slope downward from left to right. There is no evidence, however, that this range has been reached anywhere in recent depressions.

<sup>18</sup> See National Bureau of Economic Research (Financial Research Program), *Sales Finance Companies and Their Credit Practices*, by W. C. Plummer and R. A. Young (1940) Tables 35, 36, 38, 46, 47, and *Risk Elements in Consumer Instalment Financing*, by David Durand (1941) pp. 53-56, 59-62.

The foregoing description of the actual situation with regard to elastic supply may be clearer if it is briefly contrasted with the opposite situation of inelastic supply, which could exist and perhaps at one time did exist. If the instalment credit market were served entirely by pawnbrokers, loan sharks or unlicensed lenders, and if lending to consumers were regarded as a highly hazardous, unsound or even immoral business, the instalment credit institutions could not easily borrow from the banks or in the market but would be confined in their dealings to their own capital. In that case the supply of funds might be highly inelastic, at least in the short run: if demand for loans increased it would press against an almost inexhaustible supply; rates would rise or, if lenders did not dare to increase rates very greatly, credit standards would be raised and some sort of rationing would be practiced. But the volume of credit could not rise much, at least not quickly. This is a quite conceivable situation and it may actually have existed to some extent in the past. But it is certainly not the situation at present.

### *Analysis of Demand*

The argument in this section will be concerned mainly with that part of credit which is used for buying durable goods; it was estimated in Chapter 2 that this kind of credit covers between 70 and 80 percent of all consumer instalment credit. The discussion will thus, for the present, exclude credit used for the purchase of "soft" (perishable) goods, for refinancing old debts, for the payment of taxes, insurance premiums, medical and dental services, for the support of relatives. The reason for this distinction is the belief that credit used for buying durable goods exhibits distinctive features—in regard to the elasticity of demand and especially in regard to the pattern of cyclical changes in demand—which differentiate it from the other types of credit enumerated above. In other words, it is hoped that by eliminating credit other than that which the borrower intends to spend on

durable goods we may obtain a more homogeneous commodity as far as demand conditions are concerned.<sup>19</sup>

Exclusion of the above-mentioned types of credit eliminates, to a very large extent, what one could call emergency credit or distress borrowing, that is, credit which is demanded by the borrower to help him over a temporary emergency resulting from a sudden drop in income or rise in expenditure (childbirth, accident, fire, surgical operation and the like). Emergency credit is not likely to be used for the purchase of those durable goods which account for the bulk of instalment credit. This follows from the very nature of these goods. The purchase of such commodities as automobiles, furniture, refrigerators, radios and other household electric appliances is easily postponable, partly for the very reason that such goods are durable<sup>20</sup> and partly because most of them are to a large extent luxuries as well as basic necessities. An automobile, for instance, yields transportation services which, to be sure, are for innumerable people almost as much a necessity as food and clothing—a necessity being defined as a commodity the consumption of which is comparatively little curtailed when income falls.<sup>21</sup> But the necessary transportation services could be performed by an old, slow, uncomfortable, graceless car or by one that is new, powerful and smart in appearance. Thus the second kind of car is a luxury as well as a necessity, and represents an expenditure that people may easily cut down when their free

<sup>19</sup> The distinction made above corresponds closely to the distinction introduced by Rolf Nugent between "consumers' capital financing" and "consumers' deficit financing" (*op. cit.*, p. 122). Nugent speaks of "consumers' capital financing" when the additional liability resulting from the credit transaction is covered by an additional asset—the durable good—and of "deficit financing" when this is not the case. He has a third category which he calls "income-period financing," that is, "credit used to finance consumers' expenditures between dates when incomes are paid" (*loc. cit.*), but this expression refers mainly to charge accounts, with which we are not concerned at present. The term "capital financing" is a happy one, because it suggests—rightly as we shall see—a certain parallelism or similarity in the motivation of consumers with respect to this type of credit and of producers with respect to credit for the purpose of capital installations.

<sup>20</sup> This aspect of the problem will be discussed again in Chapter 5.

<sup>21</sup> In technical parlance, a necessity is a good with a low income elasticity of demand.

income shrinks. In depression periods the purchase of such cars is postponed to a remarkable degree, while the consumption of necessary transportation services is well maintained. This can be done by postponing replacement, reducing dealers' stocks of used cars and, in the lower income brackets, by putting off the scrapping of old cars. The same considerations apply, in varying degrees, to most of the other durable goods mentioned. And it is clear that people in emergencies are not likely to purchase goods of this type. Hence, by limiting the following discussion to that portion of credit which is spent on durable goods, emergency credit is largely excluded.

Let us consider first the elasticity of demand for the instalment credit that is spent in this way. Given a change in conditions of supply with respect to the finance charge, the length of the loan period or the down payment percentage, what will be the reaction of demand? Or in technical parlance, what is the elasticity of demand for instalment credit with respect to each of these three factors?<sup>22</sup> Unfortunately it is possible to do little more than clarify this problem conceptually, indicate various possibilities and hazard certain guesses on the basis of rather general considerations.

It has already been pointed out that the reactions of demand to changes of a few percent per annum in the finance charge, or in the equivalent interest rate, are probably in most cases insignificant. It is possible, of course, to conceive of increases in the finance charge that would be great enough to check drastically the demand for credit. But changes in the interest equivalent such as those that are actually found in interest rates over business cycles (3 to 5 percent) are hardly of great importance. This is evident from Table 3. Even if the interest equivalent of the finance charge is doubled, say from 6 to 12 percent per annum, the monthly instalment on an 18-month automobile contract, with a \$540 original unpaid balance, would rise only from \$31.45 to \$32.93; or on a 30-month refrigerator contract, with a \$150

<sup>22</sup> There are other kinds of elasticity, with respect, for example, to the cash price of the durable goods, to income and to change in income; these will be discussed later.

TABLE 3

MONTHLY INSTALMENT PAYMENTS REQUIRED ON SAMPLE AUTOMOBILE AND REFRIGERATOR CONTRACTS, UNDER DIFFERENT INTEREST RATES

<i>Finance Charge as Equivalent Interest on a Declining Balance<sup>a</sup></i>		<i>Finance Charge as a Percent of Original Unpaid Balance</i>	<i>Monthly Instalment Payments</i>	
Monthly	Annual		Without Finance Charge	With Finance Charge <sup>b</sup>
SAMPLE AUTOMOBILE INSTALMENT TRANSACTION, WITH ORIGINAL UNPAID BALANCE OF \$540 AND TERM OF 18 MONTHS				
$\frac{1}{2}\%$	6%	4.82%	\$30.00	\$31.45
$\frac{3}{4}\%$	9	7.28	30.00	32.18
1	12	9.78	30.00	32.93
$1\frac{1}{4}\%$	15	12.29	30.00	33.69
$1\frac{1}{2}\%$	18	14.85	30.00	34.46
SAMPLE REFRIGERATOR INSTALMENT TRANSACTION, WITH ORIGINAL UNPAID BALANCE OF \$150 AND TERM OF 30 MONTHS				
$\frac{1}{2}\%$	6%	7.94%	\$5.00	\$5.40
$\frac{3}{4}\%$	9	12.04	5.00	5.60
1	12	16.24	5.00	5.81
$1\frac{1}{4}\%$	15	20.54	5.00	6.03
$1\frac{1}{2}\%$	18	24.92	5.00	6.25

<sup>a</sup> The annual interest rate is here derived by multiplying the assumed monthly interest rate by 12. If the annual rate were determined by some method allowing for the compounding of interest it would be somewhat higher.

<sup>b</sup> The figures in this column are the equal monthly payments necessary to liquidate the indebtedness at the indicated rate of interest computed monthly on the unpaid balance.

original unpaid balance, the monthly payment would rise from \$5.40 to \$5.81. It is not likely that many consumers calculate so closely that such small changes in their monthly budget will induce them to change their plans, either to buy or to abstain from buying.

It is quite possible, however, that with respect to number of monthly instalments and down payment percentage the elasticity of demand for credit is high. In other words, it may be that a reduction in the down payment percentage or a lengthening of the contract period (an increase in the number of monthly instalments and a corresponding decrease

in size) would lead to a substantial increase in the volume of credit sales and of outstanding credit.

This question is closely connected with another that has already been touched upon: whether the introduction of instalment selling tends to stimulate demand for durable goods at the expense of other types of spending. An affirmative answer implies a certain elasticity of demand for credit in respect to the terms of credit; it implies that by making monthly instalments smaller and more numerous, and by reducing down payment percentages, new strata of the population, that is, lower income groups, may be induced to consume certain expensive durable goods.

What a change in terms may mean for the size of monthly debt payments is indicated by Table 4, which shows how much the size of the monthly payment per \$100 of original

TABLE 4

MONTHLY INSTALMENT PAYMENTS REQUIRED ON AN ORIGINAL UNPAID BALANCE OF \$100, UNDER DIFFERENT INTEREST RATES AND CONTRACT LENGTHS

<i>Interest Rate on a Declining Balance<sup>a</sup></i>		<i>Monthly Instalment Payments, with Finance Charge<sup>b</sup></i>						
Monthly	Annual	Months						
		6	9	12	15	18	24	30
$\frac{1}{2}\%$	6%	\$16.97	\$11.39	\$ 8.61	\$ 6.94	\$ 5.82	\$ 4.43	\$ 3.60
$\frac{3}{4}\%$	9	17.11	11.53	8.75	7.07	5.96	4.57	3.74
1	12	17.25	11.67	8.89	7.21	6.10	4.71	3.88
$1\frac{1}{4}$	15	17.40	11.82	9.03	7.35	6.24	4.85	4.02
$1\frac{1}{2}$	18	17.55	11.96	9.17	7.49	6.38	4.99	4.16
2	24	17.85	12.25	9.46	7.78	6.67	5.29	4.47
3	36	18.46	12.84	10.05	8.38	7.27	5.91	5.10
4	48	19.08	13.45	10.66	8.99	7.90	6.56	5.78
5	60	19.70	14.07	11.28	9.63	8.56	7.25	6.51
6	72	20.34	14.70	11.93	10.30	9.24	7.97	7.27
8	96	21.63	16.01	13.27	11.68	10.67	9.50	8.88

<sup>a</sup> The annual interest rate is here derived by multiplying the assumed monthly interest rate by 12. If the annual rate were determined by some method allowing for the compounding of interest it would be somewhat higher.

<sup>b</sup> The figures in these columns are the equal monthly payments necessary to liquidate the indebtedness at the indicated rate of interest computed monthly on the unpaid balance.

instalment debt can be reduced by lengthening the contract period. Naturally when the interest equivalent of the finance charge is lower a given lengthening of the contract will bring about a greater proportionate reduction in the monthly instalments. The table shows, for example, that an increase in the length of contract from 9 to 24 months will reduce the monthly payments per \$100 of original unpaid balance from \$11.53 to \$4.57, that is by 60 percent, if the monthly interest rate is  $\frac{3}{4}$  percent, and from \$12.84 to \$5.91, that is by only 54 percent, if the monthly interest rate is 3 percent. But with comparatively short contracts the interest factor is not likely to be of decisive importance.

It is impossible to make concrete guesses as to the elasticity of demand in general. One would hardly expect the responsiveness of demand to changes in the terms of credit to be the same at all times. It may change with the business cycle, although we do not know how, and it is certainly likely to be influenced by factors which are themselves usually related to the cycle. When a new product is introduced, or when a product's sales are pushed by price reductions so as to make it available for lower income groups, a liberalization of credit terms may operate in the same manner as an advertisement campaign or other high-pressure sales methods; these are devices for shifting the demand curve to the right, that is, in non-technical language, for creating demand and awakening a desire for a particular product in the minds of people who were not hitherto familiar with it. The response of demand to liberalizations in terms may be quite strong in these situations, and this may be described as a high elasticity of demand.<sup>23</sup>

Let us now, however, assume that the instalment system is firmly established, that the commodities sold on the instalment plan are thoroughly familiar to the consuming public

<sup>23</sup> But it is a kind of elasticity slightly different from the static sort which economists usually have in mind, and an analysis along traditional lines, assuming rational choice and an unchanging demand curve, would convey an inadequate picture in such cases. We could speak here of variability of demand.

and that the desire to possess the products in question is perfectly articulate. Is it then still true that the volume of sales and credit can be much increased by making terms more attractive, that is, by reducing the down payment percentage and lengthening the loan period?

It is true that there is always a fringe of people who have had to do without a particular product and who can conceivably be induced to buy it if credit terms are made still more liberal, especially if the liberalization of terms occurs at a time when a reduction in price has brought the article within the reach of lower income groups. This unsatisfied fringe is continually—or rather with cyclical interruptions—replenished by persons from still lower income groups, because of the secular rise in real incomes. Moreover, there are always potentialities for a further expansion of sales of better quality products. In the higher income levels people may be induced to buy new and better automobiles, for example, while the old cars move down through the second-hand market into lower income levels and poorer localities. The scrapping of old and outworn cars may conceivably be hastened by a liberalization of credit terms for sales of new and used automobiles. Thus the elasticity of demand for credit might be expected to rise and fall with replacement requirements. If a large number of automobiles, say those produced in the peak years 1928-29, are approaching scrapping age, it may be not only that the demand for cars and the demand for credit will be relatively strong, but also that the elasticity of demand with respect to terms will be high. When the lean years' output (cars produced in 1931-33) becomes ready for replacement the elasticity of demand may be on a lower level.

But in spite of all these possibilities it is likely that the demand for credit will show less responsiveness to liberalizations in terms when all income groups that can conceivably afford the services of the durable instruments sold on credit have gradually become thoroughly familiar and well supplied with the product in question.

In short, then, the demand for commodity credit may be very elastic with respect to down payment percentage and number of instalments. It is difficult, however, to distinguish between, on the one hand, structural and lasting changes in demand brought about by the easing of credit terms, and, on the other hand, repeatable movements along an unchanging demand curve and changes that occur independently of the conditions of supply (including the terms of instalment credit).

We turn now to the discussion of shifts in the demand curve for instalment credit. Here too we may concentrate mainly on that part of credit which is used for the purchase of durable goods.

Cyclical changes in income are probably the most important factor making for cyclical shifts in demand for credit.<sup>24</sup> The motive for increasing instalment debt when income has risen is easy to see. If a man's income has gone up (or his expenses have gone down) and he expects the income to remain on the higher level, at least for a considerable period, he will feel that he can now afford to spend more on current consumption, and he will plan to spend a part of the greater current income on the services of durable consumer goods such as houses, automobiles, furniture, refrigerators, radios.

<sup>24</sup> Besides income changes there may be other factors that cause cyclical changes in demand for instalment credit. Simon Kuznets has drawn attention to the fact that for example cyclical alterations in investment opportunities for funds may entail a rise of demand for instalment credit in prosperity periods and a fall in depression periods. He also mentions the correlation between marriages, births, migration, residential building, on the one hand, and business cycles on the other, as a possible source of cyclical fluctuations in credit demand. Many of these factors, however, are clearly reflections of income changes, or are connected with income changes (for example, a change in geographic or social environment), and in so far as they are independent of income changes they are of lesser magnitude.

Still another factor that may change cyclically was mentioned above, that is, changes in replacement requirements. The point of time at which consumers replace their durable goods is, however, by no means uniquely determined by technological factors (such as the age or mileage of cars), but is to a very large extent a function of income: replacement is postponable to a remarkable extent. Thus replacement requirements are only partly a technological datum. To a larger extent they are an economic variable depending on the income level.

The services of some of these can be bought separately from the good itself: a house or an apartment can be rented. When this is the case there need be no time lag, from the individual consumer's point of view,<sup>25</sup> between the increase in income and the higher level of consumption made possible by the higher income. In other cases, as with automobiles, furniture, refrigerators, it is practically impossible (or it is prohibitively expensive or it would seriously detract from the pleasure of consumption) to buy the services of durable instruments separately from the instruments themselves.<sup>26</sup> Here the instalment plan steps in and enables the individual whose income has risen to enjoy a higher standard of living at once without delay. But as a result of the durability of the instrument yielding the services the necessary condition is that he buy the services, as it were, en bloc for a considerable period ahead, stored up in the durable instrument. Thus the individual is easily induced by an increase in income to increase his expenditure by a greater amount than the current increment in income; he may even spend a multiple of that increment.

On the other hand, when incomes fall, or even when they cease to rise, people will feel that they cannot afford new and better durable goods; they will postpone purchases, and demand for new credit will fall off. Repayments on outstanding credit will go on and the amount of outstanding credit will shrink.

It is important to observe that this argument does not hold for non-durable goods. If a person's income rises and if he expects the higher level of income to be permanent, or at least to last for a considerable period, there is less in-

<sup>25</sup> For the economy as a whole there will be a lag (unless there has been an excess of unutilized dwelling space). Rents will rise and this will stimulate construction, which will be financed through producer credit channels. The expansion of producer credit when consumers spend their increment in income on houses, and of consumer credit when they spend more on, say, automobiles, will have analogous effects. We shall return to this analogy in the next chapter.

<sup>26</sup> Automobiles, for example, can be hired. It need not be discussed in detail why this would be but a poor substitute for the ownership of a car.

ducement to borrow for the purpose of buying perishable consumption goods (except when there are special circumstances which we did not assume in considering the case of durable goods<sup>27</sup>). If the individual borrows in order to increase his present consumption of perishable goods, he will have to curtail consumption later, during the period when he has to repay the debt; but if he buys a durable good, say an automobile, on credit, he may keep his actual consumption on an even keel because he will enjoy the services of the durable good during the period of debt repayment. To be sure, the expectation that income is going to rise further, that it will be higher in the future than at present, may provide an inducement to borrow now for the purpose of increasing the consumption of perishable goods. The objective of such a procedure would be to achieve a more equal consumption stream over time, to distribute the higher receipts expected for the future over a greater period including the present.<sup>28</sup> But this consideration will also tell in favor of buying durable goods on credit. On the other hand, the expectation that a given rise in income will be permanent will, in many cases, be a sufficient reason for the instalment purchase of durable goods but not of non-durable goods. It appears that the expectation that income will remain at the current level is more cautious and conservative, and is much more likely to be induced in people's minds, and acted upon, than is the expectation that income is going to rise in the near future.

The conclusion to be drawn from these considerations is that consumers have a strong incentive to increase their de-

<sup>27</sup> Such a special circumstance might be the expectation that prices are going to rise.

<sup>28</sup> The high cost of instalment credit is, however, a serious hindrance to such a procedure. Another hindrance is uncertainty as to the amount and date of the expected rise in income. An expectation that income will be higher in the somewhat distant future, say in three years, even if confidently entertained, will clearly not be sufficient to induce one to buy now on credit. These circumstances tend to keep the volume of credit used for that purpose on a moderate level and to confine it to cases where the current net income has fallen temporarily because of an accident, surgical operation or similar emergencies; such cases are discussed below.

mand for durable goods credit when their income rises and to reduce it when income falls. This makes for a movement in demand parallel to the business cycle.

Are there no forces working in the opposite direction? One should expect that borrowing undertaken to meet emergencies or distress would be negatively correlated with the business cycle.<sup>29</sup> As will be shown presently, traces of such a behavior can be discerned in the cash loan series. But apart from this, are there not conceivable cyclical behavior patterns other than that suggested above? It has sometimes been assumed in business cycle theory that when incomes fall people try to maintain their consumption standards by drawing on their savings or by running into debt. This implies that in bad times people spend more than their current income and in good times pay off their debts or replenish their savings by spending less than their income. If this were the case the result would be an anticyclical pattern of demand for instalment credit—the obverse of the one suggested by the reasoning above.

How people actually do behave, cyclically or anticyclically, will depend to some extent upon their cycle-consciousness. If they are very cycle-conscious a prosperity period will make them think about the future depression, and a depression will make them think about the good times likely to be ahead. They will then behave like Till Eulenspiegel, who was cheerful when he had to climb a hill but unhappy when he walked downhill, for climbing a hill made him think of the agreeable downhill stretch lying ahead, but when walking downhill he could not help anticipating the disagreeable experience to come.

There are good reasons, however, for believing that this type of behavior is not the rule in the economic world. The cyclical fluctuations of business are sufficiently irregular to

<sup>29</sup> To be sure, there is no presumption that loans for certain types of emergencies, such as accidents, fires, surgical operations, sickness, will cluster in depressions. But sudden, unexpected drops in income, caused by loss of employment, reduction in working time or wage cuts, are definitely concentrated in cyclical depressions.

prevent people from foreseeing and anticipating things as easily and confidently as Till Eulenspiegel. It would be difficult to explain the cumulative force of booms and depressions if the majority of people were not induced by an improvement in the economic situation (at least after it has continued for a while) to expect that the improvement or the better situation will last for some time; and similarly if a depression did not tend to create a gloomy outlook.<sup>30</sup>

Thus very probably people are not to any great extent cycle-conscious. But even if they were they could hardly try on a large scale to equalize their consumption standards over a period of time by borrowing in depressions and reducing their indebtedness in prosperity periods. For it is never known in advance how long a depression is going to last. Cyclical fluctuations are too irregular to permit confidence in forecasts of their future course, and the ups and downs of individual fortunes are still less predictable. Usually depressions are longer than the typical contract period of instalment credit. The finance charge is very burdensome, and hence it would be extremely unwise to borrow heavily at the beginning of a depression on the theory that a turn for the better will come soon. Moreover, even if consumers did attempt to pursue such a risky policy they would hardly succeed in raising the necessary funds.

Borrowing that is undertaken to meet emergencies or distress, especially the borrowing caused by a sudden drop in income (Nugent's "consumer deficit financing"), may be assumed to be negatively correlated with the cycle. This type of credit is quantitatively much less important than durable goods credit, if for no other reason than that persons in the emergencies associated with depressions are usually bad credit risks and are not allowed to borrow much; this holds, at any rate, for those in the lower income groups, who are compelled to borrow through expensive instalment credit chan-

<sup>30</sup> This has been much discussed in business cycle theory. See especially A. C. Pigou, *Industrial Fluctuations* (London 1927) and, more recently, J. R. Hicks, *Value and Capital* (Oxford 1939) and J. W. Angell, *Investment and the Business Cycle* (New York 1941).

nels and have few other means of surmounting sudden emergencies. But cash loan credit must contain a fair proportion of emergency cases, and it is quite likely that the slightly different cyclical pattern of cash loan outstandings, as compared with those of commodity credit, is attributable to this factor, especially the lag of cash loans at the upper turning point of the cycle. It seems plausible that at the beginning of a depression many people would try to borrow for the purpose of covering deficits. At that time expenditures have not yet been adjusted to the changed conditions, partly because it takes time to change one's mode of life, partly because people may still hold the hope that the deterioration of their situation will be temporary. Moreover, it may be presumed that the slump necessitates much refinancing of consumer commodity credit extended during the preceding prosperity. In other words, at that stage of the cycle cash loans are substituted to some extent for commodity credit. The reversal of this process of substitution explains the lag of cash loan outstandings behind commodity credit outstandings at the lower turning point of the cycle.

Another type of loans to consumers that probably contains a large proportion of emergency cases is life insurance policy loans.<sup>81</sup> From our point of view the most interesting fact about policy loans is that they appear to be negatively correlated with the business cycle. Table 5 indicates that the annual volume of loans made rose sharply from 1930 through 1932, at the bottom of the depression, and then fell sharply through 1936. The figures in the table also exhibit the typical sequence at the turning point of the cycle: the first series to reach its culmination was net credit change, in 1931; it was followed by loans made (new credits), in 1932; and outstandings came last, in 1933.

Policy loans have not been considered in the present study, for they have many special features that distinguish them

<sup>81</sup> On this subject I am much indebted to Paul Geren and his unpublished doctoral dissertation on *Life Insurance and the Business Cycle* (Harvard University, 1941).

TABLE 5

VOLUME OF LIFE INSURANCE POLICY LOANS, YEAR-END OUTSTANDINGS AND ANNUAL CHANGE IN OUTSTANDINGS, 1930-36<sup>a</sup>

Year	Loans Made	Loans Outstanding	
		On Dec. 31	Annual Change
1930	\$ 602.860	\$2,222.911	\$ .....
1931	791.676	2,663.177	440.266
1932	1,000.874	3,022.247	359.070
1933	723.563	3,048.636	26.389
1934	516.457	2,951.832	- 96.804
1935	441.824	2,858.523	- 93.309
1936	373.340	2,749.442	-109.081

<sup>a</sup> Based on John R. Hardin, "Seven Years of Performance—A Life Insurance Response" in Association of Life Insurance Presidents, *Proceedings*, 31st Annual Convention (1937) p. 96. Figures on year-end outstandings were obtained from the Association of Life Insurance Presidents, and represent corrections of certain of the figures presented in the source cited. All data are expressed in millions of dollars, and pertain to the total loans (cash loans and also those for the payment of premiums) made by 45 legal reserve life insurance companies, representing 84 percent of total admitted assets of all such companies in the United States.

from consumer instalment credit; but some of these features are of interest and deserve attention. The holders of ordinary life insurance policies have the right to borrow from the insurance company up to the amount of the cash surrender value of their policies. The policyholder need not ask the consent of the insurance company for the loan, the right to borrow having been stipulated in the policy.<sup>32</sup> The annual interest was formerly almost universally 6 percent, but for companies doing business in New York it has recently been lowered by the legislature of that state to 4.8 percent if payable in advance (equivalent effective rate if payable otherwise).<sup>33</sup>

These provisions create a special type of credit whose fluc-

<sup>32</sup> The company usually has the right to defer granting the loan for a period of 90 days, but in practice this right is rarely exercised.

<sup>33</sup> Most companies doing business in New York State, and many other companies, now apply this rate to all policies issued, whether in New York or elsewhere.

tuations reflect exclusively changes on the demand side—the supply side being fixed by law and custom at an unchanging level. This is in sharp contrast to most other types of credit, in which one can never be quite sure whether a given change is attributable to a change in demand, in supply or in both.<sup>34</sup>

Available data indicate that in the period 1930-36 about one-fourth the volume of total policy loans was not disbursed in cash but was used for the payment of insurance premiums.<sup>35</sup> As to the remaining three-fourths—the loans extended in cash—no precise information is available about the uses to which the borrowers devote their funds. An English monograph states that many of these loans are used for refinancing other debts of all types.<sup>36</sup> Other writers have suggested that a sizable proportion is used for the protection of marginal stock market assets.<sup>37</sup> A prominent insurance official believes that the proceeds of many policy loans have been hoarded in depressions, specifically during the bank crisis of 1933.<sup>38</sup>

This suggests that probably a larger proportion of these loans are a substitute for other forms of dissaving (such as selling stocks), and that therefore a smaller part strengthens expenditure on consumption, than is the case with those types of credit with which we have dealt so far.<sup>39</sup> It may be

<sup>34</sup> But demand for policy loans may, of course, be affected by changes in the supply conditions of credit available to policyholders from other sources.

<sup>35</sup> See John R. Hardin, "Seven Years of Performance—A Life Insurance Response" in Association of Life Insurance Presidents, *Proceedings*, 31st Annual Convention (1937) p. 96. The data pertain to 45 legal reserve life insurance companies, representing 84 percent of total admitted assets of all such companies in the United States.

<sup>36</sup> F. W. Paish and G. L. Schwartz, *Insurance Funds and Their Investment* (London 1934) p. 100.

<sup>37</sup> See, for example, H. D. Locke, *Life Insurance Finance* (1933); this writer presents a chart which suggests a fairly well marked synchronism between great drops in value of listed stocks on the New York Stock Exchange and very great increases in policy loans. Paish and Schwartz, *op. cit.*, p. 100, make a similar suggestion.

<sup>38</sup> John R. Hardin, *op. cit.*, p. 89.

<sup>39</sup> This conclusion is strengthened by the consideration that the average income of users of policy loans is probably higher than the average income of users of instalment credit, and that, as a rule, the higher the income the higher is the rate of saving.

presumed, however, that a substantial proportion finds its way into consumer expenditure.

Conditions surrounding the repayment of policy loans sharply differentiate this type of loan from consumer installment credit proper. There is no date of maturity on policy loans, or any legal obligation to repay them. The loan remains outstanding as long as the principal and accumulated interest do not exceed the cash surrender value of the policy. When they reach this level the policy is surrendered in satisfaction of the loan. In fact, available information indicates that most policy loans are never repaid but end in the surrender of the policy or in maturity of the policy or death of the insured while the loan is still outstanding.<sup>40</sup> From data given in the *Proceedings* of the Association of Life Insurance Presidents<sup>41</sup> it can be calculated that in 1931-36 the proportions of total loan terminations (cash loans and also those for the payment of premiums) that were effected by cash repayments were as follows: 1931, 28 percent; 1932, 17 percent; 1933, 16 percent; 1934, 24 percent; 1935, 34 percent; 1936, 42 percent.<sup>42</sup> The small size of these figures seems to warrant the conclusion that the repayment of the loans entails to a large extent a reduction of the debtor's saving rather than of his consumption expenditure,<sup>43</sup> if premium payments

<sup>40</sup> If there is a loan outstanding against the policy at the time of the policy's maturity or the death of the insured, the principal and accumulated interest of the loan are subtracted from the death or maturity benefit.

<sup>41</sup> Hardin, *op. cit.*, pp. 96-97. These data refer to the same 45 companies referred to above. The computation of these percentages, which refer to volume, not to number, of loan terminations, was conducted after correspondence with the Association of Life Insurance Presidents, and that organization furnished corrections for certain of the figures presented on page 96 of the *Proceedings*. Without this correction the percentages given above would read as follows: 1931, 29 percent; 1932, 17 percent; 1933, 16 percent; 1934, 14 percent; 1935, 76 percent; 1936, 28 percent.

<sup>42</sup> As could be expected, these percentages are much lower in depression than in prosperity years. It should be kept in mind, however, that the figures refer to the volume of terminations in those particular years and not to the amount of loans outstanding at any time or to the volume of loans made in any particular period.

<sup>43</sup> There is, of course, the possibility that the borrower lets the insurance lapse only in order to accumulate his savings in another form, for example in securities. In other words, it is possible that the money which is freed by the cessation of premium payments when the insurance is allowed to

that are made on insurance policies are considered to represent saving.<sup>44</sup>

Thus in policy loans, more than in other types of consumer credit, it seems that new credits are a substitute for other forms of dissaving, and that repayments are a substitute for saving. It follows that the influence of this type of credit on consumer expenditure is far less than the face value of changes in outstandings would suggest.

### CONCLUDING REMARKS

It appears, from the analysis in this chapter, that the cyclical pattern revealed by the new credits and outstandings series is not a fortuitous phenomenon, but is the outcome of forces deeply rooted in the institutional setting of instalment credit and in the psychological attitudes of borrowers and lenders. As far as that part of credit is concerned which is devoted to the purpose of buying durable consumer goods, the purchase of which is easily postponable, the forces making for cyclical fluctuations can be described as follows. If we assume the business cycle as given, demand for credit becomes more intense in the upswing of the cycle and falls during the downswing. Cyclical shifts in supply are probably less important than such shifts in demand, and supply seems to be very elastic in all phases of the cycle. It follows that the flow

<sup>44</sup> We need not here go into the question whether insurance premiums are correctly described as saving. It is sufficient to say that they are not consumption expenditure. The Study of Consumer Purchases, to which frequent reference has been made, also classifies insurance premiums as saving. On this point see also R. S. Tucker, "Estimates of Savings of American Families," *Review of Economic Statistics* (February 1942).

lapse may be saved rather than spent by the borrower on consumption. If this were the case we could not say that the loan is terminated at the expense of saving rather than of consumption. This case is not likely to arise frequently, however, for the reason that the surrender of a policy involves a substantial loss, through the abandonment of all future rights acquired by premium payments in the past. Or to put it differently, if the borrower intended to cut his consumption and to maintain his rate of saving, it is likely that he would use his savings to maintain his insurance and so protect the asset which it embodies; hence if he lets his insurance lapse, this will usually be a clear sign that he intends to reduce his saving and to spend a larger part of his income on consumption.

of new credits and the amount of outstanding credit tend to expand in the upswing and to contract in the downswing of the business cycle.

Apart from the credit that is used for easily postponable purchases of durable goods there is another type which we have characterized as emergency credit or distress borrowing. Demand for these purposes one should expect to fluctuate inversely with the cycle. A suggestion that this is true is found in the deviation of the cyclical pattern of cash loans from that of commodity credit and in the anticyclical pattern of policy loans (which are, however, in a category of their own). But credit used in this way is quantitatively much less important than credit used for the purchase of durable goods. It is the latter which determines the cyclical pattern of instalment credit in the aggregate.

Naturally, cyclical fluctuations in credit will react back on the business cycle by which they were produced. This relationship will be the subject of the following chapter.